U.S. PATENT APPLICATION

FOR

ACCESSORY MODULE

FOR HANDHELD DEVICES

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FOR HANDHELD DEVICES

BACKGROUND

[0001] The present specification relates to accessory devices and modules for portable electronic devices such as, but not limited to, handheld computers. In particular, the present specification relates to a display module or other accessory that removably interfaces with a variety of host devices, especially a handheld computer.

[0002] Handheld computing devices, palmtops, personal digital assistants (PDAs) or handheld computers typically weigh less than a pound and fit in a pocket. These handheld computers generally provide some combination of personal information management, database functions, word processing, and spreadsheets. Because of the small size and portability of handheld computers, strict adherence to hardware constraints, such as input device hardware constraints and accessory device hardware constraints, must be maintained.

[0003] Further, it is desirable to include accessories for the handheld computer to further its functionality. Such accessory devices include memory devices, positioning devices, audio players, voice recorders, Bluetooth transceivers, digital cameras, tuners, network cards, pedometers, mobile telephone transceivers, and the like.

[0004] It is conventional to provide accessory devices that are connectable to an interface on the handheld computer. Because of the small size of handheld computers, the design of accessories connectable to the handheld computer are often a size and ergonomic issue.

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[0005]   To provide the user the benefits of interoperability, it is often necessary to provide mechanisms for sharing information and sharing hardware between devices. Accordingly, it is conventional to provide hardwired, infrared, or radio frequency communications for transferring data between devices. It is also known to transfer data between devices on a recordable accessory by recording information when the accessory is inserted in one host device and reading the information when the accessory is inserted in a second host device. It is further known to have such a recording accessory that seamlessly interfaces with a variety of host devices.

[0006]   It may be desirable that such a seamless recording accessory also display data to the user. Furthermore, it may be desirable for the user to have the ability to input commands to control the information displayed, as well as to enter or change stored data. Further still, it may be desirable to provide an audible output for the user. An accessory device capable of information storage, display, input, and output may be needed that further mechanically couples to and transfers data with a variety of host devices, especially a handheld computer.

[0007]   There is also a need to display information on a recordable accessory when the accessory is not inserted into an intelligent host device. This would permit the stand-alone operation. When operated in stand-alone mode, there is a need to retain certain key data customized by the user, and display, record, and/or manipulate the data.

[0008]   In addition, there is a need for an accessory device capable of transferring data to and from a handheld computer and displaying data when coupled to a non-intelligent host device, such as a wearable watch wristband.